

1.188.310

# PATENT SPECIFICATION

DRAWINGS ATTACHED

1.188.310



Date of Application (No. 53034/67) and filing Complete Specification: 22 Nov., 1967.

Application made in Denmark (No. 6194) on 30 Nov., 1966.

Complete Specification Published: 15 April, 1970.

Index at acceptance:—E1 R24A

International Classification:—E 04 d 13/03

## COMPLETE SPECIFICATION

### Improvements in and relating to methods of Covering the Upper Side of a Skylight Support

We, EVERLITE A/S, a company organized under the laws of Denmark, at Skævinge, Denmark, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to a method of covering the upper side of a skylight support in connection with the establishment of a condensate gutter provided internally at the top of the support.

In the common form, a skylight consists of one or more lights which through a frame are carried on the upper side of a support of wood, plastic, light-weight concrete, concrete or some other suited material mounted in the roof or ceiling of a building. The upper side of such a skylight support is generally provided with a protective covering which may be formed by part of the said frame structure. This covering may be extended within the inside of the support into forming a condensate gutter catching the condensate accumulating at the transition between the support and light and leading it away through drain channels to the exterior of the support.

Said covering and condensate gutter with drain channels, which may be made in one piece, may be produced from zinc, aluminium, or some other sheet material. However, the good thermal conductivity of such materials will entail certain drawbacks, a thermal bridge being formed between the outside of the support and the condensate gutter on the inside of the support. Due to this, low outer temperatures will cause a formation of condensate on the underside of the condensate gutter, and this may seriously inconvenience the premises located below.

A method according to the invention is characterized in that structural parts of thermally insulating materials are provided on or at the support between a covering on the upper side

of the support and the condensate gutter and in a zone between a drain channel from the condensate gutter and at least the part of the condensate gutter projecting into the space within the support so that the said structural parts in a water-tight manner connect the covering, the condensate gutter, and the wall of the drain channel.

In this manner the formation of the said thermal bridge is avoided while at the same time the substantial part of the said covering and condensate gutter and the drain channels can still be produced from the materials best suited in practice, as e.g. zinc or aluminium.

The said structural parts of thermally insulating material are expediently produced as profiled sections of a shape adapted to the shape of the covering, the condensate gutter, and the drain channel and with edges so shaped that in an optional known manner a water-tight contact can be established with the parts of the covering, the condensate gutter, and the drain channel between which the said structural parts are to be fitted. The thermally insulating material may expediently be foam plastic or foam-elastomers, and foam-neoprene has turned out to be particularly well suited.

The method according to the invention will in the following be further explained by an example with reference to the drawings in which:

Figure 1 shows a section in part of a skylight in the place where from a condensate gutter mounted internally at the top of the skylight support a drain channel leads into the open air outside the support, and

Figure 2 shows a corresponding section in the same skylight outside the zone of the drain channel.

In the drawing, a support 1, is on its upper side provided with a covering 2 of e.g. sheet aluminium which towards the inside of the support comprises an obliquely downwards

[Price 5s. 0d.]

BEST AVAILABLE COPY

bent marginal portion or flange 3. Internally at the top of the support a condensate gutter 4 is placed, likewise of e.g. sheet aluminium, consisting of an oblique side face 5 projecting into the space within the support, a bottom part 6, and a lip 7 directed obliquely upwards towards the covering 2. From the bottom of the condensate gutter 4 one or more drain pipes 8, likewise of e.g. aluminium, lead from a drain opening 9 through the support 1 out into the open air. A profiled section 10 of thermally insulating material is fitted against an oblique surface of the support 1 at the upper side of the latter, so that the upper edge of the profiled section 10 is clamped water-tight under the marginal portion or flange 3 of the covering 2, while its lower edge is clamped water-tight under the lip 7 of the condensate gutter 4. At the drain opening 9 of the condensate gutter 4 the lower edge of the profiled section 10 co-operates with a U-shaped profiled section 11 of thermally insulating material which in a water-tight manner encloses the upper edge of the drain pipe 8 and engages the periphery of the drain opening 9 in a water-tight manner.

The covering 2, the condensate gutter 4, and the drain pipe 8 are in an optional known manner secured to the support 1. The lights 30 may be secured to the covering 2 in the way described in the specification of our co-pending application No. 53035/67 (Serial No.

1,188,019). For example as shown in the drawings, on the upper side of the covering 2 lights 12 and 13 are carried through flanges 14 and 15 and a packing or a layer of glue 16. The flanges 14 and 15 are mounted in a frame (not shown) of which the covering 2 may form part.

#### WHAT WE CLAIM IS:—

1. A method of covering the upper side of a skylight support in connection with the establishment of a condensate gutter mounted internally at the top of the support, characterized in that structural parts of thermally insulating material are placed on or at the support between a covering on the upper side of the support and the condensate gutter and in a zone between a drain channel from the condensate gutter and at least the part of the condensate gutter projecting into the space within the support, so that the said structural parts in a water-tight manner connect the covering, the condensate gutter, and the wall of the drain channel.

2. A method substantially as described herein with reference to the accompanying drawings.

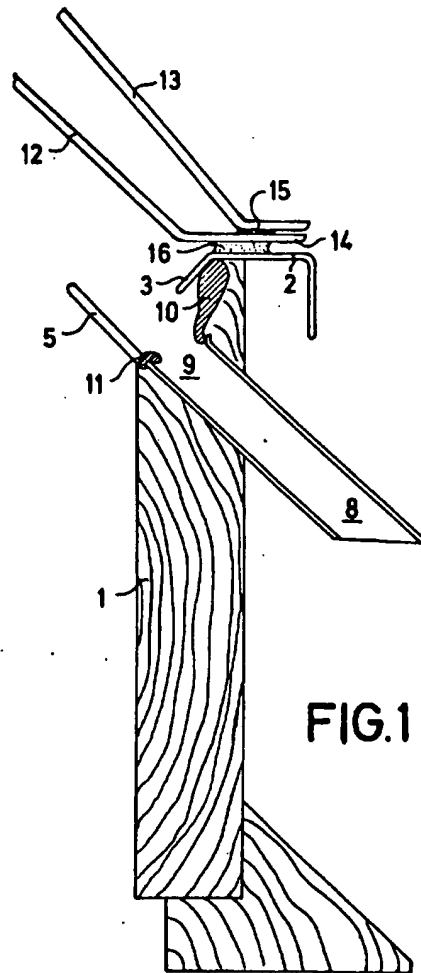
BARKER, BRETTELL & DUNCAN,  
Agents for the Applicants,  
Chartered Patent Agents,  
16, Greenfield Crescent,  
Edgbaston,  
Birmingham 15.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1970.  
Published by the Patent Office, 25 Southampton Buildings, London, W.C.2, from which copies may be obtained.

BEST AVAILABLE COPY

1188310 COMPLETE SPECIFICATION

2 SHEETS<sup>o</sup> This drawing is a reproduction of  
the Original on a reduced scale  
Sheet 1



**FIG.1**

**BEST AVAILABLE COPY**

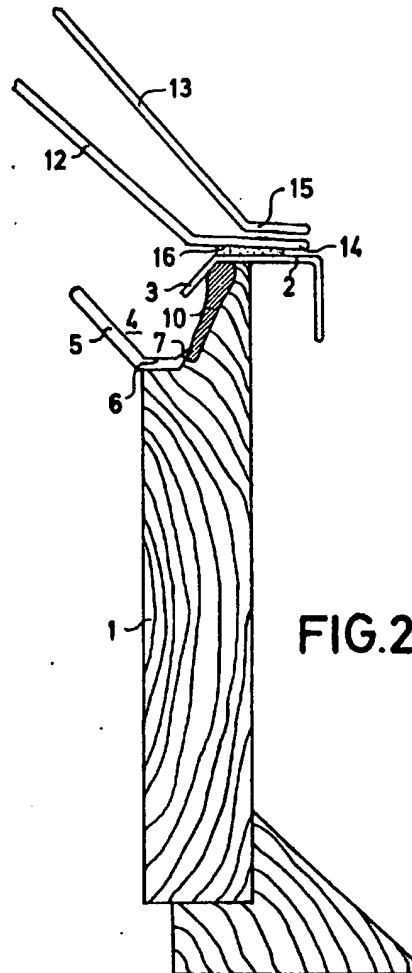
1188310

COMPLETE SPECIFICATION

2 SHEETS

*This drawing is a reproduction of  
the Original on a reduced scale*

Sheet 2



BEST AVAILABLE COPY